

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Xiao-An Zhang et al

Application No.: (Filed Herewith)

Filed: (Filed Herewith)

Title: BISTABLE MOLECULAR MECHANICAL  
DEVICES ACTIVATED BY AN ELECTRIC  
FIELD FOR ELECTRONIC INK AND OTHER  
VISUAL DISPLAY APPLICATIONS

Attorney Docket No.: PD-10003868-1

Group Art Unit:

Examiner:

Assistant Commissioner for Patents  
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Dear Sir:

This is a Preliminary Amendment in the above-identified patent application. Please amend the application as follows:

IN THE SPECIFICATION:

Please replace the paragraph beginning at page 2, line 29, with the following rewritten paragraph:

--The gyricon spheres are disclosed in a number of patents issued and assigned on their face to Xerox Corporation; an example of one such patent is U.S. Patent 5,982,346, issued November 9, 1999, and entitled "Fabrication of a Twisting Ball Display Having Two or More Different Kinds of Balls".--

Please replace the paragraph beginning at page 23, line 14, with the following rewritten paragraph:

--For the molecules of Example 1b, a single monolayer molecular film is grown, for example using Langmuir-Blodgett techniques or self-assembled monolayers, such that the orientation axis of the molecules is perpendicular to the plane of the electrodes used to switch the

molecules. Electrodes may be deposited in the manner described by Collier et al., Science, Vol. 285, pp. 391-394 (16 July 1999), and Collier et al., Science, Vol. 289, pp. 1172-1175 (18 August 2000), or methods described in the above-referenced patent applications. Alternate thicker film deposition techniques include vapor phase depositions, contact or ink-jet printing, or silk screening.--

#### REMARKS


Claims 1 through 32 are pending in the application. The specification is amended to correct a typo in a prior art reference. The specification is also amended to specifically identify prior art, which was inadvertently missing the citations of the references.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version with markings to show changes made.**"

The foregoing amendments to the specification do not introduce new matter, and are submitted to place the application in condition for allowance. The Examiner is respectfully requested to take such action. If the Examiner has any questions, he is invited to contact the undersigned at the below-listed telephone number. HOWEVER, ALL WRITTEN COMMUNICATIONS SHOULD CONTINUE TO BE DIRECTED TO: HEWLETT-PACKARD COMPANY, Intellectual Property Administration, P.O. Box 272400, Fort Collins, CO 80527-2400.

Respectfully submitted,  
Zhang et al

July 3, 2001

  
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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**In the specification:**

Paragraph beginning at line 29 of page 2 has been amended as follows:

The gyrycon spheres are disclosed in a number of patents issued and assigned on their face to Xerox Corporation; an example of one such patent is U.S. Patent 5,982,346 [5,892,346] issued November 9, 1999, and entitled "Fabrication of a Twisting Ball Display Having Two or More Different Kinds of Balls".

Paragraph beginning at line 14 on page 23 has been amended as follows:

For the molecules of Example 1b, a single monolayer molecular film is grown, for example using Langmuir-Blodgett techniques or self-assembled monolayers, such that the orientation axis of the molecules is perpendicular to the plane of the electrodes used to switch the molecules. Electrodes may be deposited in the manner described by Collier et al., *Science*, Vol. 285, pp. 391-394 (16 July 1999), and Collier et al., *Science*, Vol. 289, pp. 1172-1175 (18 August 2000) [*supra*], or methods described in the above-referenced patent applications. Alternate thicker film deposition techniques include vapor phase depositions, contact or ink-jet printing, or silk screening.